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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,782	04/30/2001	Bret L. Howell	TE2-090	4357
21567	7590	02/09/2004		EXAMINER
				HYEON, HAE M
			ART UNIT	PAPER NUMBER
				2839

DATE MAILED: 02/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/845,782	HOWELL ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Hae M Hyeon	2839	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 10 November 2003.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-28 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 30 April 2001 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ .
- 4) Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_ .
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_ .

**DETAILED ACTION*****Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the second adapter abutting the first adapter must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Since the drawings do not show the first and second adapters mounted on the adapter mount areas, it is not clear how the second adapter is abutting the first adapter when the first and second adapters are mounted side by side.

***Claim Objections***

2. Claim 24 recites the limitation "the second adapter mount area" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

The second adapter mount area is first introduced in claim 25, but not in claim 24.

3. Claim 27 is objected to because of the following informalities: Claim 27 is repeating the preamble again in line 3. The examiner suggests the applicant to delete line 3, which recites, "an adapter holding structure comprised of."

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. Claims 27 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 27 recites the limitation "the framework" in line 6. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 10, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen (6,009,224) in view of Glover et al (6,466,724 B1).

Allen discloses a fiber optic cable connector tray system 20 comprising a tray framework 26 having a first end, a second end, a first side and a second side; a plurality of adapter holders 42 having an adapter mount area for receiving an adapter 36, and a fiber optic cable passageway between an adjacent adapter holders 42; and a transversely oriented cable storage area 24 on the tray framework 26. A first and a third of the plurality of fiber optic cable adapter holders is mounted to the tray framework 26 offset from a second and a fourth of the plurality of adapter holders, respectively. Fiber optic cables attached to adapters on the first and third of the plurality of adapter holders pass through the passageways on the second and fourth of the plurality of

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adapter holders, respectively (see column 4, lines 45-51). However, the adapter holders 42 of Allen do not hold two adapters, but only one adapter.

Glover discloses a high density fiber optic connector comprising an adapter holder 48 having first and second adapter mount areas 49a to hold an adapter 46 to develop a high density fiber optic connector. Furthermore, an adapter holder having one or two adapter mount area only deals with a duplication of part. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the adapter holder taught by Allen such that it would have two adapter mount areas as taught by Glover to provide high density fiber optic connector.

8. Claims 2-4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen and Glover et al as applied to claims 1, 10, and 15-17 above, and further in view of the admitted prior art in the present specification paragraphs [0028] to [0029].

Claims 2-4 recites that the adapter holders are configured to receive at least sixteen or twenty-four FC-type adapters or to receive SC adapters. While Allen and Glover do not disclose specific types of the adapter, the present specification states that FC-type or SC adapter is already known in the art.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the adapter holder taught by Allen such that it would receive FC-type adapter or SC adapter as taught by the instant invention because it only deals with modifying the holder to receive one of the known adapters.

In regarding to the number of adapters that the adapter holders to receive and claim 18, these only deal with a duplication of parts. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen and Glover et al as applied to claims 1, 10, and 15-17 above, and further in view of Koopman et al (5,713,755).

Claim 5 recites that the adapter mount area comprises an alignment guide and a latch to mount and secure the adapter on the adapter mount area. However, Allen does not discloses both latch and alignment guide.

Glover teaches an opening 49c of the adapter holder 48, which allows the adapter 46 to be easily snapped into the holder 48. Also, Koopman discloses an alignment pin 18 for positively locating the position of a connector 10 when mounting the connector 10 to a printed circuit board. Furthermore, the concept of a latch and an alignment pin for holding two objects correctly is a commonly used method. Lastly, Allen and Glover do not disclose specific types of the adapter, but the present specification states that FC-type or SC adapter is already known in the art.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the adapter mount area taught by Allen such that it would have a latch as taught by Glover and an alignment pin as taught by Koopman because the latch and the alignment pin allows the adapter to be mounted on the adapter mount area easily and

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10. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Allen and Glover et al as applied to claims 1, 10, and 15-17 above, and further in view of Harvey et al (6,227,718).

While claim 6 recites that the plurality of adapter holders being slidably mounted to the tray framework, the reference by Allen does not state the specific way to mount the adapter holder 42. However, Harvey discloses a plurality of adapter holders 12 having a dovetail extension 22 on a bottom of the adapter holder 12 that slidably mounts to a match dovetail slot 20 on a show 16, which is fixedly mounted on a bracket 14 of a tray framework 10. Therefore, the adapter holders 12 can be easily mounted or dismounted from the tray framework 10. Harvey also teaches that the adapter holders 12 can be mounted on the tray framework 10 using glue, fasteners, etc (see column 2, lines 48-65).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the adapter holder taught by Allen such that it would be mounted slidably on a tray framework as taught by Harvey because it is easy to mount or dismount the adapter holder onto the tray framework. Furthermore, it only deals with a method of mounting the adapter holder, which does not affect the function of the adapter holder. Also, different methods of mounting an object are known and available in the art.

11. Claims 6-9, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen and Glover et al as applied to claims 1, 10, and 15-17 above, and further in view of Puetz (5,946,440).

Claims 6 and 7 recite that the plurality of adapter holders are slidably mounted to the tray framework and a plurality of base apertures in a base of the tray framework adjacent to the plurality of adapter holders for providing access to the plurality of adapter holders through the

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base. The reference by Allen does not state the specific way to mount the adapter holder 42 and the base of the tray framework 26 does not have a plurality of base apertures.

Puetz discloses a tray framework 170 comprising a plurality of adapter holders 180 slidably receives an adapter 182 and a plurality of apertures 246 formed adjacent to the adapter holders 180 through the base of the tray framework for accessing the adapter holder area.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the tray framework taught by Allen such that it would have slidably mounting adapter and a plurality of apertures formed adjacent to the adapter holders through the base of the tray framework as taught by Puetz in order to provide easy access to the adapter holder area to easily mount or remove the adapters.

In regarding to a mount angle recited in claims 8 and 9, Allen mounted the adapters 36 on the tray framework with a wider side of the adapter 36 facing the base of the tray framework. On the other hand, Puetz mounted the adapters 182 on the tray framework with a narrower side of the adapter 182 facing the base of the tray framework. In view of the adapter 36 of Allen and the adapter 182 of Puetz, if the adapter 182 of Puetz is viewed as the adapter 182 mounted on the base in ninety degrees to the base, the adapter 36 of Allen can be viewed as the adapter 36 mounted on the base in zero degree to the base. If the adapter 36 of Allen is viewed as ninety degrees mount, then the adapter 182 of Puetz can be viewed as zero degree mounts. Since one of the adapters is mounted in zero degree, the mount angle of the zero degree adapters has a mount angle less than ten or ninety degrees. Furthermore, the instant invention does not provide any reason or a specific problem to be solved by having a mount angle less than ninety degrees or ten

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degrees. Therefore, it is an obvious design alternative to provide a desired mount angle for the adapter holders.

12. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen and Glover et al as applied to claims 1, 10, and 15-17 above, and further in view of Jenkins et al (5,870,519).

While claims 11 and 12 recite a pivotally mounted splice housing above a cable storage area of the tray framework, Allen does not disclose a splice housing. However, Jenkins discloses a splice tray 110 pivotally mounted on a tray framework 10 for accommodating optical fibers above a cable storage area 21.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the tray framework taught by Allen such that it would have a pivotally mounted splice tray as taught by Jenkins to accommodate optical fibers.

13. Claims 19 and 23-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen in view of Glover et al and Koopman et al (5,713,755).

Since the examiner already explained the inventions of Allen, Glover and Koopman, the examiner will not repeat the description again. The applicant is advised to refer to the above rejection paragraphs 7-9.

In addition, all the adapter holders taught by Allen and Glover must have the adapter mount area's width equal to the adapter's width in order to mount the adapter on the adapter mount area. Thus, the same rejection applied to claims 1-5, 10 and 15-18 in the above paragraphs 7-9 applies here, too.

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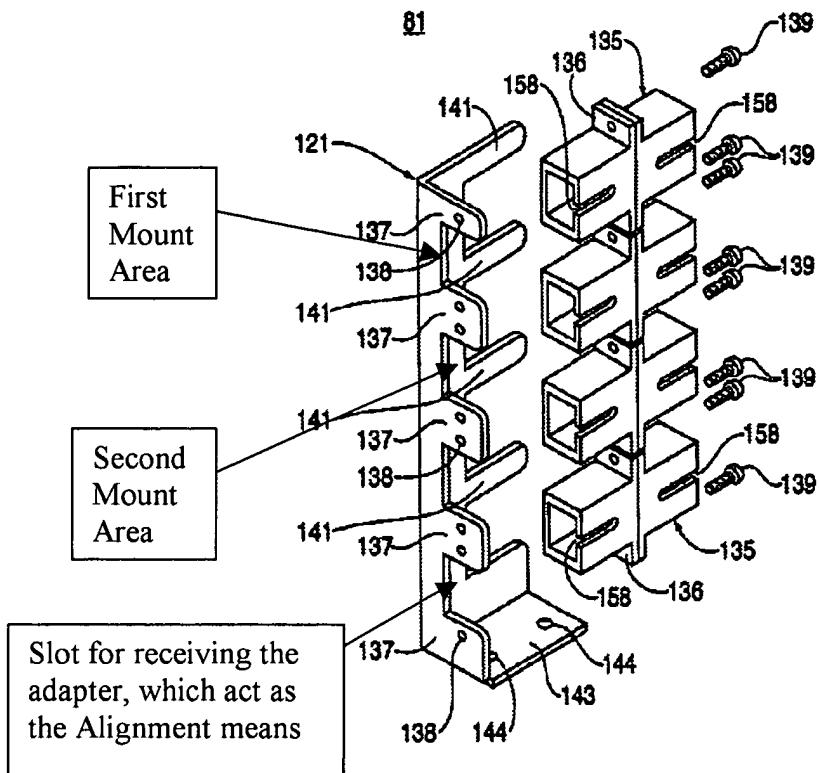
14. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Allen, Glover et al and Koopman et al as applied to claims 19 and 23-28 above, and further in view of Puetz.

Claim 20 recites the same limitation as claim 7 and claims 21-22 recite the same limitations as claims 8-9. Therefore, the same rejections applied to claims 7-9 in the above paragraph 11 also apply to claims 20-22. Thus, the examiner will not repeat the rejection.

15. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kusuda et al (6,644,866 B1).

Kusuda discloses a fiber optic cable adapter holding structure 81 comprising a first adapter mount area and a second adapter mount area, each mount area configured to receive SC-type adapter 135. Each mount area includes an alignment means (a slot for receiving the adapters on the attachment surface 137) to position the adapter and an attachment means 138 and 139 to secure the adapter to the mount area. Although Kusuda does not disclose FC-type adapter to be attached on the adapter mount area, Kusuda teaches in the prior art Figure 31b that FC-type adapter can be used.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the adapter holding structure taught by Kusuda such that it would attach FC-type adapter as taught by the prior art of Kusuda because it only deals with using one type of known adapter over the already known other type adapter.

**FIG. 9*****Response to Arguments***

16. Applicant's arguments filed October 22, 2003 have been fully considered but they are not persuasive. The applicant argues that the reference by Allen '224 teaches the tray framework including "a fiber optic cable passageway between the first adapter mount area and the second adapter mount area," but the fiber optic cables **happened to be routed** between a plurality of independently mounted adapter holders on the tray. The examiner disagrees with the applicant because Allen '224 clearly teaches the fiber optic cables to be routed between a plurality of the adapter holder. Column 4, lines 47-51 explains, "The organizer tray is shown as having an

**offset three by four matrix arrangement of the receptacles 42, which allows optical fibers 38, 40 to pass in between the connectors 36 and the other rows."**

17. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

The examiner has found new references, which are used to make new rejections to some of the claims such as claims 5, 19 and 23-28

**It is unnecessary, however, that inventions of references be physically combinable to render obvious an applicant's invention. *In re Sneed*, 710 F.2d 1544, 1550, 218 USPQ 385, 389 (Fed. Cir. 1983).** The test for obviousness is not whether the features of a reference may be bodily incorporated into the structure of another reference but what the combined teachings of those references would have suggested to those of ordinary skill in the art. *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871,881 (CCPA 1981).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 703-308-4802. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D Feild can be reached on 703-308-2710. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

**Any response to this action may be mailed to:**

**Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450**

For additional information regarding this new address, which was effective May 1, 2003, see *Correspondence with the United States Patent and Trademark Office*, 68 Fed. Reg. 14332 (March 25, 2003).

**Or Faxed to:**

(703) 308-7722 or 308-7724

(Informal or draft communications should be clearly labeled "PROPOSED" or "DRAFT")

**Hand-delivered responses should be brought to:**

Crystal Plaza 4, Fourth Floor (Receptionist)  
2201 South Clark Place, Arlington, Virginia.

Hae M Hyeon  
Examiner  
Art Unit 2839

hmh hmh

*Hae Moon Hyeon*